

ABSTRACT

An electrochemical reformer 1 using reactant feed structures having both hydrophilic and hydrophobic regions to provide mechanisms for the wicking of liquid reactants into reformer 1 and for the separation and removal of gaseous products from reformer 1. The electrical reformer 1 may be combined with a fuel cell, a portion of the output of which is used to power reformer 1, to create a compact, portable power source.